

## DOCUMENT RESUME

ED 447 506

CS 217 317

AUTHOR Ediger, Marlow  
TITLE Writing Poetry in Ongoing Science Units of Study.  
PUB DATE 2000-00-00  
NOTE 7p.  
PUB TYPE Opinion Papers (120)  
EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS \*Childrens Writing; \*Content Area Writing; \*Creative Writing; Elementary Education; \*Learning Strategies; \*Poetry; Reading Aloud to Others; Science Activities; \*Science Instruction; Teacher Role  
IDENTIFIERS Poetic Forms; Science Writing

## ABSTRACT

In school, writing may be emphasized across the curriculum. There is a plethora of kinds of written work for students to be engaged in when studying science lessons and units. Poetry writing may be an excellent way for students to reveal what has been learned in a science unit. Many good poems dealing with science information are collected in anthologies for teachers to use. The teacher needs to read aloud to students selected science subject matter poems and encourage these learners to write poems for ongoing units and for personal enjoyment. Poetry chosen for oral reading needs to be on the developmental level of learners, and it needs to capture their interest. A bulletin board with illustrations and related poetry will stimulate interest in the writing of poetry dealing with science. Several examples of poems--couplets, quatrains, limericks, and haiku--serve to show how students can write rhymed verse with a scientific theme. In writing poetry, the teacher should follow guidelines and principles of learning.  
(NKA)

# Writing Poetry in Ongoing Science Units of Study.

by Marlow Ediger

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- ☐ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND  
DISSEMINATE THIS MATERIAL HAS  
BEEN GRANTED BY

*M. Ediger*

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)

## **WRITING POETRY IN ONGOING SCIENCE UNITS OF STUDY**

Written communication is important in school and in society. Everyday, individuals engage in written communication. In school, writing may be emphasized across the curriculum. Science units of study can stress a quality writing program, integrated with what students are studying in science. There are a plethora of kinds of written work for students to be engaged in when studying science lessons and units. Creative writing of poetry can be of great interest to many students with quality ways of motivating learners in wanting to write. Poetry writing may be an excellent way for students to reveal what has been learned in a science unit. Students differ from each other in intelligences possessed (Gardner, 1993). One, among many, might relate to creative intelligence. However, creativity in school and in society is very important for all. To be a good problem solver, which all need to be, requires the ability to seek novel solutions to problematic situations. Rarely, does a single procedure work in solving a problem. New approaches and ways are needed in the solution process. Certainly, the creative writing of poetry can assist each learner to become increasingly proficient in the problem solving arena. Then too, poetry may be written and enjoyed for its very own sake. The writer has known individuals who have written many poems for personal enjoyment which have never been sent in for publication. Others have had poems published in less well known journals as well as once in a while, the individual has succeeded in having a poem published in a major publication. Science topics and knowledge provide an excellent source for the writing of poetry (See Ediger, 2000, 20-29).

Many good poems dealing with science information are written in anthologies for teachers to use in teaching students. The teacher needs to read aloud selected science subject matter poems to students and encourage these learners to write poems for ongoing units and for personal enjoyment.

### **Reading and Writing Science Poetry**

Reading poetry aloud to students should be done with enthusiasm and personal enjoyment. Poetry chosen for oral reading needs to be on the developmental level of learners. It needs to capture the interests of students. A model is then provided for students to use in poetry writing. The science teacher starting with the kindergarten level may read to students a couple which is followed by learners writing couplets. The couplet is the easiest form of rhymed verse for learners to write. Students need to see couplets on the chalkboard, on an overhead, as well as on a computer monitor. After hearing couplets and participating actively in a discussion on what a couplet is, students should be ready to write their own. Adequate readiness on the part of the student needs

to be in evidence; hurrying with students writing couplets does not work for successful learning. A well developed bulletin board with illustrations and related poetry will stimulate interest in and the writing of poetry dealing with science. In a unit on "The Changing Surface of the Earth," a gifted primary grade student with teacher assistance wrote the following couplet, observed by the writer as a Supervisor of Student and Cooperation Teachers in the Public Schools (See Ediger, 1999, 7-15):

Erosion of the land  
Hurts farm fields on the long hand.

Here, students have studied and put into poetry writing different kinds of erosion which wastes valuable top soil. Later, in sequence and with considerable knowledge about the science unit, "the Changing Surface of the Earth," a student with the help of the teacher in the same classroom wrote the following triplet by adding a line to the above couplet, consisting of three lines with all ending words rhyming:

Erosion of the land  
Hurts Farm fields on the long hand  
Should it be banned?

In a science unit on "Simple Machines," two fourth grade students wrote the following quatrain, consisting of four lines of rhymed verse, cooperatively:

The axle and wheel  
And a pulley of steel  
Went up an inclined plane  
To do much work loading a crane.

There are a variety of methods to use in developing background information within students in order to write poetry in ongoing science units. among others, these include discussions of slides, films, filmstrips, videos, illustrations, content from reading library books as well as the basal text, ideas from software packages, among others. The science teacher needs to use learning opportunities for student s to write poetry when science experiments and demonstrations are performed in a hands on approach in science units (Ediger, 1999, 46-55).

A fifth grade student wrote the following limerick with lines one, two, and five rhyming, as well as lines three and four also rhyming:

Fish breath air through the use of gills  
Amphibians live in both water and on hills  
They interact with the environment  
And feed on plants and animals to feel content  
While reptiles live in water, as well as on rocks and  
rills.

With learners having different learning styles (Dunn and Dunn, 1979), students may choose to work individually or cooperatively in writing poetry. Haiku is a form of verse which has no rhyme, but has five, seven, five syllables for each of three sequential lines. Two sixth graders cooperatively wrote the following haiku:

Birds fly in the air  
Having feathers and light bones  
They can soar and glide.

Writing haiku involves knowledge of subject matter as well as hearing and being able to write syllables. There are additional forms of poetry involving syllabication. A tanka has two additional lines, with a seven-seven sequence. Two lines may be added to the haiku or a new poem written such as in the following tanka:

Young mammals drink milk  
Cats have hair on their bodies  
They are true mammals  
Cats, eat meat, are warm blooded  
They raise a litter of young.

Thus, the tanka has the following number of syllables per sequential line -- five, seven, five, seven, seven.

Students who cannot hear rhyme or the number of syllables per word may enjoy writing free verse which is quite openended in style and length. A learner might then reveal what has been learned in a science lesson or unit with free verse such as in the following:

The eagle  
can see well  
soars down at high speed to catch prey  
is on the endangered species list  
lays eggs which hatch to provide young eaglets  
has a sharp beak and talons on the claws  
is classified as a bird among the invertebrates.

In writing poetry in science, the following guidelines should be followed by the teacher within an ongoing science lesson or unit of study:

1. students should choose the topic for writing. Being knowledgeable of the subject matter to be written is vital for success in learning.
2. students should be assessed based on what can be achieved

developmentally. Science subject matter needs to be inherent in each poem written. A variety of approaches should be used to apprise student achievement in science, including poems written

3. students should select the kind of poem to be written, but they should experience different kinds of rhyme, syllabication, or free verse. Individual differences need to be provided for among those learners who cannot hear rhyme nor syllabication.

4. the science teacher needs to provide models with quality teaching so that students may be stimulated to write poetry. He/she also needs to encourage, support, and assist students in poetry writing.

5. poetry written may be chosen as a part of the student's portfolio in the science curriculum (Ediger, 1999, Chapter Eight).

Principles of learning from educational psychology need to be followed by the science teacher in teaching and learning situations.

1. interesting poetry should be read to students to encourage learner reading and writing of poems.

2. meaningful poetry needs to be in the repertoire of the student. Thus, each learner should understand the meaning of poetry being pursued in reading and writing.

3. readiness for reading and writing poetry must be in the offing in order that each student may achieve, pursue, and accomplish. Adequate subject matter possessed by each learner needs to be present in order to be able to write effectively.

4. purpose needs to be felt in writing reading and writing poems. The science teacher may then state reasons, acceptable to the learner, in writing each kind of poetry.

5. individual differences among students need to be provided for. Learners are on different levels of achievement in writing science verse. Each student may work toward optimal achievement, beginning with the present achievement level.

6. individual and committee developed poems may be written to provide for different styles of learning possessed by students. When committees are used to write poems in science, the teacher needs to monitor carefully so that each student is contributing and does not depend only on others for the finished product. Working together harmoniously is important!

7. lifelong consumers and producers of poetry should definitely be an end result of teaching and learning in poetry.

8. growth in the mechanics of writing such as correct spelling of words, punctuation, quotation marks, direct address, among others, should be stressed to make communication more meaningful in the writing of science poetry.

9. challenge for achieving optimally should be stressed in ongoing lessons and units of study in science. The writing of poetry in these

periods of time should also stress optimal achievement of learners.

10. self evaluation of achievement needs to be emphasized so that students monitor their very own progress (Ediger, 2000, Chapter Seven).

### References

Dunn, Rita, and Kenneth Dunn (1979), "Learning Styles/Teaching Styles," Educational Leadership, 36 (4), 238-244.

Ediger, Marlow (2000), "The School Principal as Leader in Reading Instruction," Reading Improvement, 37 (1), 20-29.

Ediger, Marlow (1999), "Reading and Vocabulary Development," Journal of Instructional Psychology, 26 (1), 7-15.

Ediger, Marlow (1999) "Grouping for Instruction in Reading," Virginia English Bulletin, 49 (1), 46-55.

Ediger, Marlow (1999), Teaching Science in the Elementary School. Kirksville, Missouri: Simpson Publishing Company, Chapter Eight.

Ediger, Marlow (2000), Teaching Reading Successfully. New Delhi, India: Discovery Publishing House, Chapter Seven.

Gardner, Howard (1993), Multiple Intelligences: Theory into Practice. New York: Basic Books.



U.S. Department of Education  
Office of Educational Research and Improvement (OERI)  
National Library of Education (NLE)  
Educational Resources Information Center (ERIC)



# REPRODUCTION RELEASE

(Specific Document)

CS 217 317

## I. DOCUMENT IDENTIFICATION:

Title: <i>Writing Poetry in Ongoing Science Units</i>	
Author(s): <i>Dr. Marlow Ediger</i>	
Corporate Source:	Publication Date: <i>12-28-00</i>

## II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
<div>PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY  <i>Sample</i>  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)</div> <div>1</div>	<div>PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY  <i>Sample</i>  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)</div> <div>2A</div>	<div>PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY  <i>Sample</i>  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)</div> <div>2B</div>
Level 1 ↑ <input checked="" type="checkbox"/>	Level 2A ↑ <input type="checkbox"/>	Level 2B ↑ <input type="checkbox"/>
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.  
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign  
here, →  
please

Signature: <i>Marlow Ediger</i>	Printed Name/Position/Title: <i>Marlow Ediger Prof.</i>	
Organization/Address:	Telephone: <i>660-665-2342</i>	FAX:
	E-Mail Address:	Date: <i>12-28-00</i>

DR. MARLOW EDIGER  
TRUMAN STATE UNIVERSITY  
RT. 2 BOX 38  
KIRKSVILLE, MO 63501